

## **REMARKS**

Claims 1, 4-14, 17-26, 29-31, and 35-42 are pending in the application. Claims 1, 14, 26, 31, and 35-38 are amended herein. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

### **“Adapted To” Advice**

In paragraph 4 of the office action, the Examiner states that “Applicant continues to ignore Examiner’s advise ... to avoid using phrases like ‘adapted to’.”

In response, the Applicant notes that the MPEP does not stipulate any form of response to “Examiner’s advise.” Moreover, on page 20 of the office action dated 05/28/2008, the Examiner explicitly and unequivocally stated that “Applicant’s arguments on previously raised claim objections regarding use of the phrase ‘adapted to’ ... ha[ve] been noted and consequently the claim objections are withdrawn.” [Emphasis added.] Since, presently, there is no formal objection to the use of the phrase “adapted to” in various claims, the Applicant submits that no affirmative action is required from the Applicant on this point.

### **Claim Rejections**

In paragraph 6 of the office action, the Examiner rejected claims 1-2, 4, 10-11, 14-15, 17, 23, 26-27, 29, 31-32, and 35-42 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of Park. In paragraph 8, the Examiner rejected claims 5, 18, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of Park and Chaddha. In paragraph 9, the Examiner rejected claims 6, 12-13, 19, and 24-25 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of Park and Eshet. In paragraph 10, the Examiner rejected claims 7, 9, 20, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of Park, Eshet, and Balachandran. In paragraph 11, the Examiner rejected claims 8 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Ngo in view of Park, Eshet, Balachandran, and Li.

For the following reasons, the Applicant submits that all pending claims are allowable over the cited references.

Support for the amendment of claim 1 can be found in Applicant’s specification, e.g., on page 6, lines 4-11. Each of independent claims 14, 26, and 31 is amended similar to claim 1.

Amended claim 1 now specifies that the step of assigning comprises assigning to said at least two of said base and enhancement sub-streams QoS parameter sets corresponding to at least two different access categories of the IEEE 802.11e standard.

On page 5 of the office action, the Examiner admits that Ngo “fails to disclose a method wherein the contention-based WLAN system [conforms] to an IEEE 802.11e standard and supports a quality of service (QoS) facility.” It then follows that Ngo can not possibly teach or suggest the above-specified step of assigning because that step uses “at least two different access categories of the IEEE 802.11e standard.”

Park discloses a traffic-management method that enables end-to-end QoS in a WLAN system by interfacing (i) user-level traffic over IP Differentiated Service and (ii) transport-level IEEE 802.11e QoS. While it is true that Park talks about different access categories of the IEEE 802.11e standard (see, e.g., Park’s Table I), it is also true that Park does not teach or even suggest assigning base and enhancement sub-streams corresponding to the same data stream to said different access categories. Moreover, Park does not even mention base and enhancement sub-streams or

their functional equivalents. It therefore follows that Park does not teach the above-specified step of assigning.

For at least the following two reasons, the Applicant submits that it would not have been obvious to one of ordinary skill in the art how to arrive at the method of claim 1 based on the teachings of Ngo and Park.

First, Ngo is concerned with improving reliability of transmission of a layered data stream (see, e.g., Ngo's col. 2, lines 12-16). By definition, all layers of the layered data stream belong to the same traffic type, e.g., streaming audio or streaming video (see, e.g., Ngo's col. 5, lines 49-54). Park, on the other hand, is concerned with traffic management based on different traffic types and has nothing to do with transmission of layered data (see, e.g., Park's page 948, left column, the second paragraph from the bottom). As such, Park assigns different traffic types (or classes) to different access categories (see, e.g., Park's page 948, Table III). Clearly, the concepts used in Park and Ngo are mutually exclusive because, in Park, every traffic type (or class) is assigned a single priority value, whereas, in Ngo, a traffic type (e.g., streaming video) is assigned multiple priority values (e.g., one priority value to the base layer and a different priority value to an enhancement layer). Due to this mutual exclusivity, one of ordinary skill in the art would not be motivated to combine Ngo and Park.

Second, Ngo and Park are directed to modifications in different communication layers of the protocol stack. More specifically, Ngo is directed to modifications in the physical (PHY) layer (see, e.g., Ngo's Tables I and II). In contrast, Park is directed to modifications in the media access control (MAC) layer. The Applicant notes that the whole point of having the protocol stack is that its different layers can be and, in fact, are treated as "black boxes," independent of one another. Therefore, an engineer working on modifications in the PHY layer would not be motivated to combine those modifications with or supplement them by modifications in the MAC layer. Similarly, an engineer working on modifications in the MAC layer would not be motivated to combine those modifications with or supplement them by modifications in the PHY layer. Due to this independence and separability of the different communication layers in the protocol stack, one of ordinary skill in the art would not be motivated to combine Ngo and Park.

The Applicant further notes that Chaddha, Eshet, Balachandran, and Li do not rectify the above-stated deficiencies of Ngo and Park because those references do not even mention "an IEEE 802.11 standard," let alone "a QoS facility," both of which are explicitly recited in claim 1.

For all these reasons, the Applicant submits that claim 1 is allowable over the cited references. For similar reasons, the Applicant submits that each of claims 14, 26, and 31 is also allowable over the cited references. Since the rest of the pending claims depend variously from claims 1, 14, 26, and 31, it is further submitted that those claims are also allowable over the cited references. The Applicant submits therefore that the rejections of claims under § 103 have been overcome.

Claim 39, which depends from claim 1, further specifies that the step of assigning comprises: (i) assigning to the base sub-stream a QoS parameter set corresponding to a voice access category of the IEEE 802.11e standard; (ii) assigning to a first enhancement sub-stream a QoS parameter set corresponding to a video access category of the IEEE 802.11e standard; (iii) if there is a second enhancement sub-stream, then assigning to the second enhancement sub-stream a QoS parameter set corresponding to a video probe access category of the IEEE 802.11e standard; and (iv) if there is a third enhancement sub-stream, then assigning to the third enhancement sub-stream a QoS parameter set corresponding to a best effort access category of the IEEE 802.11e standard. The Applicant submits that the cited references, independently or in combination, do not teach or

suggest this particular assignment of sub-streams to different access categories of the IEEE 802.11e standard. These facts provide additional reasons for the allowability of claim 39 over the cited references. The Applicant further submits that these additional reasons similarly apply to the allowability of each of claims 40-42.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to **Mendelsohn & Associates, P.C. Deposit Account No. 50-0782**.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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